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Remarks

This application has been reviewed in light of the nonfinal Office Action of November 16, 2007. Claims 1-21 are pending, and all claims are indicated as rejected in the Office Action Summary. In response, the following remarks are submitted. Reconsideration of this application, as amended, is requested.

Applicant calls to the Examiner's attention the fact that claims 6-10 and 16 are not addressed in the specific rejections set forth in the Detailed Action. There is mention of claims 6-10 in the paragraph bridging pages 7-8 of the Office Action, and there is mention of claim 16 in the paragraph bridging pages 5-6 of the Office Action. These mentions of claims 6-10 and 16 in the explanation of a rejection that does not include these claims do not conform to the requirements for a rejection set forth in MPEP 707.07(d).

Ground 1. Claims 17 and 20 are rejected under 35 USC 102 as anticipated by Vock US Patent 6,320,173. Applicant traverses this ground of rejection.

The following principle of law applies to sec. 102 rejections. MPEP 2131 provides: "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. The identical invention must be shown in as complete detail as is contained in the ... claim. The elements must be arranged as required by the claim..." [citations omitted] This is in accord with the decisions of the courts. Anticipation under section 102 requires 'the presence in a single prior art disclosure of all elements of a claimed invention arranged as in that claim.' Carella v. Starlight Archery, 231 USPQ 644, 646 (Fed. Cir., 1986), quoting Panduit Corporation v. Dennison Manufacturing Corp., 227 USPQ 337, 350 (Fed. Cir., 1985)

Thus, identifying a single element of the claim which is not disclosed in the reference is sufficient to overcome a Sec. 102 rejection.

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The explanation of the rejection focuses on the embodiments of Figures 6A-6B of Vock. Applicant will direct the remarks primarily to these embodiments as well.

Claim 17

Claim 17 recites in part:

"cooperatively analyzing the output signals from at least two spatially adjacent array subelements

to establish a data set reflective of an extent to which output signals responsive to the image of the feature are produced from exactly one or from more than one of the adjacent array subelements, and

to reach a conclusion from the data set as to a location of the image of the feature on the segmented array."

The explanation of the rejection (Office Action, page 3, lines 1-4) asserts that this limitation is disclosed in Vock at col. 3, lines 13-25 and col. 7, lines 33-40. At these two locations, Vock discusses the hardware used in his system for tracking golf balls. Vock describes a high-speed camera system and the use of digital electronics, but does not discuss how the digital electronics works. Both of these sections of Vock do not discuss any analysis of the information, and there is certainly no mention of any cooperative analysis of the output signals. There is no disclosure of data sets, no disclosure of establishing the extent to which output signals responsive to the image of the feature are produced from exactly one or from more than one of the adjacent array subelements, and no disclosure of the use of the data set to reach a conclusion from the data set as to a location of the image of the feature on the segmented array.

Perhaps the Examiner has some other location in mind for the asserted disclosure of Vock, and can identify that location in a subsequent office action.

Claim 20

Claim 20 incorporates the limitations of claim 17 and is therefore patentable over Vock as well. Additionally, claim 20 recites:

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"providing a two-dimensional segmented array formed of a pattern of square array subelements, wherein four of the square array subelements meet at an intersection point, and wherein the step of forming an image includes the step of

forming the image having a diameter of one blur diameter."

The explanation of the rejection (Office Action, page 3, lines 5-10) does not reference any location in Vock where this limitation is said to be taught, but does mention Figures 6A-6B. The explanation of the rejection references "the slightly blurred image of 142a-e, 152, or 154)". There is no disclosure in Vock of blur diameters or one blur diameter, or any concept of blur diameter.

As discussed in para. [0034] of the present application, "In all cases, each point in the scene is imaged as a blur spot. The diameter of this spot is referred to as a 'blur diameter', and is a characteristic of the optics system 22." The blur diameter is related to the apparent size on the detector of a point in the scene, and there is no mention of that concept in Vock.

Applicant submits that the Examiner is attempting to read something of this concept into Vock by referring to the concept of blur diameters from the present application. No one reading Vock without knowledge of the present application will find any concept of blur diameter in Vock.

The reference to "slightly blurred image" in the explanation of the rejection is evidence of this attempted hindsight reconstruction. Vock itself has no mention of a "slightly blurred image". That concept is imported into the explanation of the rejection entirely from the present invention.

Ground 2. Claims 17-19 are rejected under 35 USC 102 as anticipated by Perregaux US Patent 6,654,056. Applicant traverses this ground of rejection.

Claim 17

Claim 17 recites in part:

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"cooperatively analyzing the output signals from at least two spatially adjacent array subelements

to establish a data set reflective of an extent to which output signals responsive to the image of the feature are produced from exactly one or from more than one of the adjacent array subelements, and

to reach a conclusion from the data set as to a location of the image of the feature on the segmented array."

Perregaux discloses configurations for photosites on chips that reduce Moire patterns. It does not relate to image analysis.

The explanation of the rejection (Office Action, page 3, line 16-page 4, line 4) asserts that it finds this disclosure at col. 14, lines 28-36 of Perregaux. This portion of Perregaux discloses that the electronic subsystem receives image signals "and processes these signals to convert them to a continuous tone or grayscale rendition of the image." The gray-scale signals are provided to a raster output scanner. That disclosure does not even mention the analysis of spatially adjacent array subelements, establishing of a data set, establishing a data set reflective of an extent to which output signals responsive to the image of the feature are produced from exactly one or from more than one of the adjacent array subelements, reaching any type of conclusion, or reaching a conclusion from the data set as to a location of the image of the feature on the segmented array. Perregaux isn't concerned with analyzing the image of features--it is concerned with processing the image to reduce Moire patterns.

Claims 18-19

Claims 18-19 incorporate the limitations of parent claim 17 and are therefore not disclosed by Perregaux

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·Ground 3. Claims 13-15 and 21 are rejected under 35 USC 103 over Hou US Patent 6,596,979 in view of Coufal US Pub. 2003/0053221. Applicant traverses this ground of rejection.

MPEP 2142, under ESTABLISHING A PRIMA FACIE CASE OF OBVIOUSNESS, provides: "To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. [citations omitted]. See MPEP para 2143-2143.03 for decisions pertinent to each of these criteria."

First requirement--there must be an objective
basis for combining the teachings of the references

The first of the requirements of MPEP 2142 is that "there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings". The present rejection is a sec. 103 combination rejection. To reach a proper teaching of an article or process through a combination of references, there must be stated an objective motivation to combine the teachings of the references, not a hindsight rationalization in light of the disclosure of the specification being examined. MPEP 2142, 2143 and 2143.01. See also, for example, In re Fine, 5 USPQ2d 1596, 1598 (at headnote 1) (Fed.Cir. 1988), In re Laskowski, 10 USPQ2d 1397, 1398 (Fed.Cir. 1989), W.L. Gore & Associates v. Garlock, Inc., 220 USPQ 303, 311-313 (Fed. Cir. 1983), and Ex parte Levengood, 28 USPQ2d 1300 (Board of

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Appeals and Interferences, 1993); Ex parte Chicago Rawhide Manufacturing Co., 223 USPQ 351 (Board of Appeals 1984). As stated in In re Fine at 5 USPQ2d 1598:

> "The PTO has the burden under section 103 to establish a prima facie case of obviousness. [citation omitted] It can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references."

And, at 5 USPQ2d 1600:

> "One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention."

Following this authority, the MPEP states that the examiner must provide such an objective basis for combining the teachings of the applied prior art. In constructing such rejections, MPEP 2143.01 provides specific instructions as to what must be shown in order to extract specific teachings from the individual references:

> "Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention when there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992)."

* * * * *

> "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990)."

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* * * * *

"A statement that modifications of the prior art to meet the claimed invention would have been 'well within the ordinary skill of the art at the time the claimed invention was made' because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. Ex parte Levengood, 28 USPQ2d 1300 (Bd.Pat.App.& Inter. 1993)."

Here, there is set forth no objective basis for combining the teachings of the references in the manner used by this rejection, and selecting the helpful portions from each reference while ignoring the unhelpful portions. An objective basis is one set forth in the art or which can be established by a declaration, not one that can be developed in light of the present disclosure.

Hou and Coufal deal with entirely different things. Hou teaches photodetectors upon which a scene is imaged. In the specific case of most interest to Hou, the scene is a paper-based object, such as text and graphics, that is to be imaged in a flat-bed scanner or the like. (See for example col. 1, lines 22-25 and col. 2, lines 57-59.) Coufal deals with an entirely different subject, the tailoring of the transverse intensity distribution of a beam of light produced by a laser or other collimated light source having a Gaussian transverse intensity distribution. (See, for example, para. [0003]-[0011], [0014]-[0017], and claim 1) There is absolutely no reason to believe that light from a scene, such as imaged by Hou, is in the form of a beam having a Gaussian intensity distribution such as discussed by Coufal. It is not in such a form, being ordinary visible light.

There is no basis for combining the teachings of these two references.

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Second requirement--there must be
an expectation of success

The second of the requirements of MPEP 2142 is an expectation of success. There is no expectation of success. This requirement has not been addressed in the explanation of the rejection, and in any event more than Examiner's argument is required here. Applicant will be interested to consider the argument for success in light of the completely different purposes of the technologies of Hou and Coufal.

As stated in MPEP 2142, "The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. [citations omitted]."

Third requirement--the prior art
must teach the claim limitations

The third of the requirements of MPEP 2142 is that "the prior art reference (or references when combined) must teach or suggest all the claim limitations." In this regard, the following principle of law applies to all sec. 103 rejections. MPEP 2143.03 provides "To establish prima facie obviousness of a claimed invention, all claim limitations must be taught or suggested by the prior art. In re Royka, 490 F2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970)." [emphasis added] That is, to have any expectation of rejecting the claims over a single reference or a combination of references, each limitation must be taught somewhere in the applied prior art. If limitations are not found in any of the applied prior art, the rejection cannot stand. In this case, the applied prior art references clearly do not arguably teach some limitations of the claims.

The explanation of the rejection (long paragraph bridging pages 4-5 of the Office Action) focuses on the embodiments of Figures 2-3 and Figure 10 of Hou, discussed at col. 9, line 52 et seq. Applicant will direct the remarks primarily to these embodiments

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as well.

Claims 13-15, 21

Claim 13 recites in part:

"an optics system that images a point feature of a scene at an image plane as a blur-circle image having a blur diameter"

The explanation of the rejection seeks to analogize the "scanning dot" of Hou with the recited "blur circle". There is no factual basis for that attempted analogy, and nothing in Hou supports the Examiner's argument on this point. In fact the "scanning dot" of Hou is not the "blur circle" recited in the present claims. Hou is concerned with optical flatbed scanners such as used to scan the printed matter of a document for input into a computer (col. 1, lines 14-35). The "scanning dot" of Hou is the light spot that is scanned across the printed matter. The scanning dot is not a "blur circle", which is the image of a point feature of a scene at an image plane (see para. [0034] of the present application).

The explanation of the rejection of claim 13 at pages 4-5 of the Office Action has a long discussion of what Hou is said to teach in terms of blur diameters. In the midst of this discussion, at page 6, lines 8-10, the explanation states "Hou does not explicitly disclose that the optics system that images a point feature of a scene at an image plane as a blur-circle image having a blur diameter." In point of fact, Hou does not explicitly or implicitly disclose anything about blur diameters or the concept of blur diameters. The discussion at col. 10, lines 12-18 is not related to blur diameter, but simply a statement of the size of the scanning dot.

Accordingly, the long discussion prior to this point of the explanation of the rejection is nothing but a paraphrasing of the recitation of claim 1. It is unrelated to anything that is taught by Hou. There is no disclosure in Hou of "an optics system that images a point feature of a scene at an image plane as a blur-circle image having a blur diameter". Hou has no teaching of any of this argued material found at page 4, lines 4-

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19 of the Office Action.

Claim 13 further recites in part:

"...detector subelements are sized responsive to the blur diameter..."

Hou does not disclose a blur diameter, and certainly does not disclose or suggest that the photodetectors are sized in any manner responsive to a blur diameter. The sizing of detector subelements functionally responsive to the blur diameter is a concept originated in the present application.

Ground 4. Claims 1-5 and 11-12 are rejected under 35 USC 103 over Carnall US Patent 5,065,245 in view of Hou '979 and further in view of Coufal US Pub. '221. Applicant traverses this ground of rejection.

Applicant incorporates from the discussion of Ground 3 the legal requirements for a sec. 103 rejection.

First requirement--there must be an objective
basis for combining the teachings of the references

In this case, the teachings of Hou cannot be combined with those of Carnall due to the different geometries and analytical procedures taught by the two references.

At the top of page 7 of the Office Action, it is argued that combining the teachings of these two references would provide a reliable means of focusing and aligning image onto the photodetector array". No location is referenced for this assertion, and Applicant cannot find any such assertion in either reference. Further, there is no reason to believe that Carnall needs such a means, or that the approach of Hou would provide such a feature to Carnall's structure.

Further, there is no basis for adding in the teachings of Coufal. Applicant

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incorporates the discussion of the different technologies of Hou and Coufal from the Ground 3 discussion. This point applies here as well, and to the attempt to combine teachings of Coufal with those of Carnall. Carnall also deals with a sensor, not the tailoring of the transverse intensity of a Gaussian-distribution laser beam as in Coufal.

Second requirement--there must be
an expectation of success

This requirement is not addressed in the explanation of the rejection. Applicant incorporates its prior discussion of this requirement.

Third requirement--the prior art
must teach the claim limitations

Claim 1

Claim 1 recites in part:

"an optics system that images a point feature of a scene at an image plane as a blur-circle image having a blur diameter;"

Neither reference teaches or even mentions "blur-circle image" or "blur diameter" or the concept of the blurring of a point of light in the scene after passing through the optics at all, in any way.

At page 6, lines 17-, the explanation of the rejection states: "Carnall, Jr. does not disclose an optics system that images a point feature of a scene at an image plane as a blur-circle image having a blur diameter. Hou shows in Fig. 2B a) an optics system (208, optical lens 274) that images a point feature of a scene at an image plane as a blur-circle image having a blur diameter (col. 5, lines 27-33)." Hou has no such disclosure or teaching at col. 5, lines 27-33 or elsewhere. There is no mention of

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blur circle image or any analogous concept in Hou.

Claim 1 further recites in part:

"the detector array is a one-dimensional detector array comprising a plurality of detector subelements each having a width of from about 1/2 to about 5 blur diameters, and a length of n blur diameters,"

None of the references teach these limitations. The explanation of the rejection asserts that Carnall teaches these limitations, but points to no location in the reference as a source of the teachings.

Claim 1 further recites in part:

"wherein an overlap of each of the two adjacent detector subelements is m blur diameters and a center-to-center spacing of each of the two adjacent detector subelements is n_0 blur diameters, and wherein n is equal to about 3m and m is equal to about $n_0/2$."

Neither reference teaches these limitations. The explanation of the rejection asserts that Carnall teaches these limitations, but points to no location in the reference as a source of the teachings.

In the first full paragraph on page 8 of the Office Action, its the same thing. Quotations from the present claims instead of a discussion of what Carnall teaches, without any sources in Carnall. None of the references teach the limitations of claims 2-5.

Claim 2

Claim 2 depends from claim 1 and incorporates its limitations. The limitations of claim 1 are not taught by the references for the reasons stated above and which are

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incorporated here. Claim 1 is not taught by the combination of references, and claim 2 therefore also cannot be taught by the combination of references.

Claim 2 further recites in part:

"the detector subelements each have a width of about 1 blur diameter."

There is no teaching in either reference of this limitation. As pointed out above, the attempt to analogize the "scanning spot" of Hou with the "blur circle" of the present claims is baseless and is not supported by anything in Hou. In fact, Hou's discussion of its application in flatbed scanners makes it clear that Hou is talking about a scanning spot that travels over the document, not the broadening of a point in the scene by the optics of the imaging system.

But even if such an analogy were made, none of the references has any teaching of the quoted claim limitation.

In the explanation of the rejection (first full paragraph on page 7 of the Office Action), it is argued "subelements each have a width of about 1 blur diameter", referencing Figure 1 of Carnall. Figure 1 is a side view of a sensor array apparatus, and no feature that could arguably be indicated as a "blur diameter" is even shown. Carnall also has no teaching of such a limitation in its specification text.

Claim 3

Claim 3 depends from claim 1 and incorporates its limitations. The limitations of claim 1 are not taught by the references for the reasons stated above and which are incorporated here. Claim 1 is not taught by the combination of references, and claim 3 therefore also cannot be taught by the combination of references.

Claim 3 further recites in part:

"n lies in a range of from about $(3m-2)$ to about $(3m+2)$, and m lies in a range of from about $(n_0/2-1)$ to about $(n_0/2+1)$."

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There is no teaching in either reference of this limitation. As pointed out above, the attempt to analogize the "scanning spot" of Hou with the "blur circle" of the present claims is baseless and is not supported by anything in Hou. In fact, Hou's discussion of its application in flatbed scanners makes it clear that Hou is discussing a scanning spot that travels over the document, not the broadening of a point in the scene by the optics of the imaging system.

But even if such an analogy were made, none of the references has any teaching of the quoted claim limitation.

In the explanation of the rejection (first full paragraph on page 7 of the Office Action), it is argued "n lies in a range of from about $(3m - 2)$ to about $(3m + 2)$, and m lies in a range of from about $(n_n/2 - 1)$ to from $(n_0/2 + 1)$", referencing Figure 1 of Carnall. Figure 1 is a side view of a sensor array, and no feature that could arguably be indicated as a "blur diameter" is even shown. Carnall also has no teaching of such a limitation in its specification text.

Claim 4

Claim 4 depends from claim 1 and incorporates its limitations. The limitations of claim 1 are not taught by the references for the reasons stated above and which are incorporated here. Claim 1 is not taught by the combination of references, and claim 4 therefore also cannot be taught by the combination of references.

Claim 4 further recites in part:

"n lies in a range from $(3m-2)$ to $(3m+2)$, and m lies in a range of from $(n_0/2-1)$ to $(n_0/2+1)$."

There is no teaching in either reference of this limitation. As pointed out above, the attempt to analogize the "scanning spot" of Hou with the "blur circle" of the present claims is baseless and is not supported by anything in Hou. In fact, Hou's discussion of its application in flatbed scanners makes it clear that Hou is talking

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about a scanning spot that travels over the document, not the broadening of a point in the scene by the optics of the imaging system.

But even if such an analogy were made, none of the references has any teaching of the quoted claim limitation.

In the explanation of the rejection (first full paragraph on page 7 of the Office Action), it is argued "n lies in a range of from (3m - 2) to (3m + 2), and m lies in a range of from $(n_o/2 - 1)$ to $(n_o/2 + 1)$", referencing Figure 1 of Carnall. Figure 1 is a side view of a sensor array, and no feature that could arguably be indicated as a "blur diameter" is even shown. Carnall also has no teaching of such a limitation in its specification text.

Claim 5

Claim 5 depends from claim 1 and incorporates its limitations. The limitations of claim 1 are not taught by the references for the reasons stated above and which are incorporated here. Claim 1 is not taught by the combination of references, and claim 5 therefore also cannot be taught by the combination of references.

Claim 5 further recites in part:

"n is equal to 3m and m is equal to $n_0/2$."

There is no teaching in either reference of this limitation. As pointed out above, the attempt to analogize the "scanning spot" of Hou with the "blur circle" of the present claims is baseless and is not supported by anything in Hou. In fact, Hou's discussion of its application in flatbed scanners makes it clear that Hou is talking about a scanning spot that travels over the document, not the broadening of a point in the scene by the optics of the imaging system.

But even if such an analogy were made, none of the references has any teaching of the quoted claim limitation.

In the explanation of the rejection (first full paragraph on page 7 of the Office

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Action), it is argued "n is equal to 3m and m is equal to $n_0/2$", referencing Figure 1 of Carnall. Figure 1 is a side view of a sensor array, and no feature that could arguably be indicated as a "blur diameter" is even shown. Carnall also has no teaching of such a limitation in its specification text.

Claim 11

Claim 11 incorporates the limitations of claim 1, which are not taught by the combination of references for the reasons stated above. Claim 11 is therefore also patentable over this ground of rejection.

Claim 12

Claim 12 incorporates the limitations of claim 1, which are not taught by the combination of references for the reasons stated above. Claim 12 is therefore also patentable over this ground of rejection.

Response to Examiner's Arguments

At pages 9-12 of the Office Action, the Examiner sets forth his responses.

Claim 1 and its dependent claims

Perhaps the fundamental difference in the views of Applicant and the Examiner is that the Examiner finds teachings of the concept of "blur diameter" when there is no such teaching in any of the references. At page 12, lines 5-9, the Examiner argues that there is no requirement that the exact terms be used, as long as the concepts are there. Applicant agrees. However, the attempt to find some concept of the blur circle is misplaced. Further, a sec. 103 rejection requires that the art have a teaching of the claim limitation, and does not permit a hindsight reconstruction in light of the present invention is sufficient.

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MPEP 2143.03, quoted above, requires that the prior art teach the claim limitations. Claims 1-5, for example, recites some specific numerical limitations that are not remotely taught in any reference. The explanation of the rejections of claims 1-5 copies the claim language, but does not point to any location in the references where the limitations are said to be taught.

The explanation of the rejections of claims 1-5 and the Examiner's Argument (Office Action, page 12, lines 10-13) asserts that Carnall "shows in Figure 1 an imaging sensor system...comprising a plurality of detector subelements each having a width of from about 1/2 to about 5 blur diameters..." There are two responses. First, Figure 1 shows only the apparatus, not a blur-image spot. It is therefore not possible to reach the stated conclusion from Figure 1 or its associated text about the claim language, because the claim language states a relation between detector size and blur-image size. Second, the argument evidences a misunderstanding of the requirements for a sec. 103 rejection. The claim limitation as recited must be taught--an overlap, even if it were present, is not sufficient. That might work for a sec. 102 rejection, but not a sec. 103 rejection where a teaching of the claim limitation is required.

The rejections now seek to rely on "inherent" features. Applicant traverses this approach. MPEP 2112-2113 sets forth the law on inherency. Inherency is not to be taken lightly and not to be asserted unless there is good evidence to suggest that the asserted property or characteristic is necessarily present in the teachings of the prior art reference. The concept of inherency is not provided as a way to fill in the gaps in missing disclosure or teachings based upon speculation, unless the asserted property or characteristic may be shown to be necessarily present by objective evidence. Instead, "inherency" is used when every aspect of the disclosure of a reference and the claimed subject matter is otherwise exactly the same, then it may be inferred that some property or characteristic further recited in the claim must necessarily be present in the art reference. MPEP 2112 provides "The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. In re Rijckaert, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993); In re Oelrich, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981).

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"To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted) "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)"

If these rejections are maintained, Applicant asks that the Examiner provide the basis in fact or technical reasoning as required by MPEP 2112-2113.

Regarding the combination of the teachings of the references, the Examiner now argues (Office Action, page 11, lines 7-12) that "the objective basis for combining the references do not necessarily need to be found within the references themselves if it is generally known to one of ordinary skill in the art..." [emphasis added]. The problem in relying upon that argument is that there is no evidence of record establishing such general knowledge in those of ordinary skill. By relying on the argument, the Examiner implicitly admits that the references themselves do not have the necessary objective basis. No other evidence of the general knowledge of those skilled in the art is of record, such as an affidavit from such a person. The general knowledge of those skilled in the art is not whatever the Examiner wants it to be to construct a rejection. The whole point of the MPEP in this area is that there has to be something of record that shows what the state of knowledge is. Mere examiner's argument is not sufficient.

Claim 13 and its dependent claims

Claim 13 recites in part: "the detector subelements are sized responsive to the blur diameter". The explanation of the rejection asserts that Hou has such a teaching. First, the Examiner's Argument (Office Action, page 10, lines 1-12) argues that Hou

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has a teaching of a blur diameter. This is based on what "would be considered by those skilled in the art" (Office Action, page 9, line 16), without any reference to the prior art or any other evidence of the knowledge of a person skilled in the art other than para. [0089] of Coufal. Coufal speaks of imperfections in optical systems, but there is no teaching of any quantitative expression of such imperfection or concept such as blur diameter. Specifically, there is no teaching of a blur diameter or anything of the sort in this portion of Coufal. Second, the Examiner's Argument references Col. 9, line 52-col. 10, line 18 of Hou for the teaching of sizing the detector subelement responsive to blur diameter. Of course, Hou has no teaching of blur diameter or blur-spot image. Nothing in this portion of Hou, or elsewhere, says, in effect, if the blur diameter is X, make the detector element 2X or 7X or 0.5X, or anything of the sort. There is nothing in the references that seeks to relate the detector subelement size with a blur diameter.

The argument for combining the teachings of Hou and Carnall is based on "acknowledged motivation generally available to the examiner as one of ordinary skill in the art." (Office Action, page 11, lines 1-2) That statement, as the basis for combining the teachings of two unrelated references, necessitates some careful consideration. If the Examiner is asserting that as a matter of fact he was a person of ordinary skill in the art at the time the present application was filed, the supporting facts must be made of record in a sworn statement, as well as his knowledge of the teachings of Hou and Carnall, and his knowledge of combining the teachings of Hou and Carnall at the time the present application was filed. If the Examiner is asserting that as a matter of law all examiners are considered to be persons skilled in the art, Applicant requests that such legal authority be made of record. If that is the law, then all of this other stuff that the MPEP, the Board of Appeals, and the Federal Circuit say about needing an objective basis is meaningless, because the requirement could always be satisfied by the examiner of the case just saying "its because I say so, and by law I'm a person skilled in the art". It also has some important factual implications, because an examiner with 1 month of experience certainly has a different skill level than an examiner with 30 years of experience, suggesting different standards for "persons skilled in the art".

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Applicant asks that the Examiner reconsider and withdraw the rejections, and allow the application to issue.

Respectfully submitted,

[signature]

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